From: Labiosa, Rochelle
To: Adams, Angela
Subject: RE: Region 10 nutrients presentation preparation - information compilation requested by Sept. 10
Date: Tuesday, November 06, 2018 10:55:00 AM

Thank you so much, Angela!

Rochelle Labiosa, Ph.D.
Office of Water and Watersheds
US EPA, Region 10
1200 Sixth Avenue, Suite 155, MC: OWW-191
Seattle, WA 98101-3140
Ph: 206.553.1172

From: Adams, Angela
Sent: Tuesday, November 06, 2018 9:36 AM
To: Gockel, Catherine <Gockel.Catherine@epa.gov>; Labiosa, Rochelle <labiosa.rochelle@epa.gov>
Cc: Potokar, Steven <Potokar.Steven@epa.gov>; Murchie, Peter <Murchie.Peter@epa.gov>; Rylko, Michael <Rylko.Michael@epa.gov>; Chang, Lisa <Chang.Lisa@epa.gov>; Meyer, Susan <meyer.susan@epa.gov>; Whitaker, Melissa <Whitaker.Melissa@epa.gov>; Hanft, Sally <Hanft.Sally@epa.gov>
Subject: RE: Region 10 nutrients presentation preparation - information compilation requested by Sept. 10

Marine Water Quality Implementation Strategy (effort partially funded by EPA, including funding for facilitation and Salish Sea Model development, optimization, and use).

1. **Implementation Strategy Objectives**

   1.1. A healthy balance of nutrients in Puget Sound is that supports aquatic life uses and human well-being (meaning we have a healthy, diverse regional economy and lifestyle that depends on a healthy Puget Sound). This must account for temporal and spatial heterogeneity in the Sound (we are not looking for a single number that must be met everywhere in the Sound, rather we recognize that shallow inlets and bays will react differently than main basin areas and we may have different expectations for what healthy looks like in those areas). Human nutrient sources and degradation of natural watershed, estuarine, and marine nearshore function has impacted the natural equilibrium of the physical, chemical, biogeochemical, and biological systems in the Salish Sea. This IS should examine and account for the diverse ecological functions that are impacted by anthropogenic nutrient sources.

   1.2. Understand the sensitivity of water quality parameters and actions affecting those parameters; which “dials” can we turn to result in the biggest changes in water quality that get us to our water quality targets.

   1.3. Develop nutrient load reductions for marine and watershed sources along with a prioritized and sequenced list of key actions, that are evaluated for efficacy with the Salish Sea model, and that once implemented will achieve the water quality goals of a healthy, balanced Puget Sound water quality. Ecology will use this information to make regulatory decisions regarding nutrient controls for point and nonpoint sources.

   1.4. Develop a monitoring strategy, proposing new indicators if needed, that will track both the implementation of key actions to ensure implementing partners are doing what we agree to do, and track the environmental and water quality response to those actions to evaluate if we are achieving the expected improvement in Puget Sound water quality.

The Salish Sea Model will inform the development of this Implementation Strategy.

As mentioned, I am a member of the Core Team. As such my responsibilities include providing input and guidance to the IS process and content development, identifying cross-cutting issues and helping to connect with other IS teams.

Please let me know if you have any questions.

Thank you!

Angela

From: Adams, Angela
Sent: Tuesday, November 06, 2018 9:27 AM
To: Gockel, Catherine <Gockel.Catherine@epa.gov>; Labiosa, Rochelle <labiosa.rochelle@epa.gov>
Cc: Potokar, Steven <Potokar.Steven@epa.gov>; Murchie, Peter <Murchie.Peter@epa.gov>; Rylko, Michael <Rylko.Michael@epa.gov>; Chang, Lisa <Chang.Lisa@epa.gov>; Meyer, Susan <meyer.susan@epa.gov>; Whitaker, Melissa <Whitaker.Melissa@epa.gov>; Hanft, Sally <Hanft.Sally@epa.gov>
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Thanks, Catherine!
Rochelle – there is one additional area that we have partially funded – the development of a Marine Water Quality Implementation Strategy. I also serve on that Implementation Strategy's Core Team. I am just compiling some information for you on that effort.
Cheers,
Angela

From: Gockel, Catherine
Sent: Tuesday, November 06, 2018 9:25 AM
To: Labiosa, Rochelle <labiosa.rochelle@epa.gov>
Cc: Potokar, Steven <Potokar.Steven@epa.gov>; Murchie, Peter <Murchie.Peter@epa.gov>; Adams, Angela <Adams.Angela@epa.gov>; Rylko, Michael <Rylko.Michael@epa.gov>; Chang, Lisa <Chang.Lisa@epa.gov>; Meyer, Susan <meyer.susan@epa.gov>; Whitaker, Melissa <Whitaker.Melissa@epa.gov>; Hanft, Sally <Hanft.Sally@epa.gov>
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Hi Rochelle,
Here's what I've compiled from the Puget Sound team:

1. Puget Sound National Estuary Program funds have supported the development of the **Salish Sea Model**.
2. We funded a large cooperative agreement for Ecology to implement the **Toxics and Nutrients Lead Organization work**, with many subawards, including on-farm BMPs. See attached Tox/Nutrients presentation from Melissa Gildersleeve (the end of the PowerPoint presentation has slides on that work). Total of 56 projects, $15.7 million federal grant, ($16 million match), $32 million investment in Puget Sound.
3. The Salish Sea model will support the **Puget Sound Nutrient Source Reduction Project.**
4. EPA's large grants to the Dept of Health have supported **pollution identification and**

correction work in all 12 Puget Sound counties. PIC programs are an innovative tool for local partners to protect and restore shellfish beds and protect people from water-borne pathogens. PIC programs find, correct and prevent fecal (and other) pollution sources and use adaptive management to link the identification of pollution sources to monitoring and corrective action. PIC programs also offer technical and financial assistance to help homeowners and farmers to treat their sewage and address livestock waste. (See attached PIC Best Practices writeup for more info to pull from.)

5. NEP funds support **multi-stakeholder Puget Sound marine water quality work.** See http://www.psp.wa.gov/vitalsigns/marine_water_quality.php
6. **Jana Compton's Nitrogen work** – the Puget Sound Program doesn't support this directly, but it would be good to get info from Jana.
7. I'll defer to Steven on the **Streaming Nooksack/ZAPS** continuous monitoring project and whether it's ok to pull from the attached presentation. ZAPS is really an OCE project, but Puget Sound has funded some of the implementation.
8. EPA participates in **Ecology's Nutrient Forum** (see attached flyer).

Hope this helps! Let us know if you need more information. Thank you for pulling this together for the Region.

Catherine Gockel, MS/MPA
Puget Sound Program
Office of Water and Watersheds
EPA Region 10
206-553-0325

From: Chang, Lisa
Sent: Tuesday, August 21, 2018 8:12 PM
To: Gockel, Catherine <Gockel.Catherine@epa.gov>; Murchie, Peter <Murchie.Peter@epa.gov>; Adams, Angela <Adams.Angela@epa.gov>; Rylko, Michael <Rylko.Michael@epa.gov>; Meyer, Susan <meyer.susan@epa.gov>
Cc: Potokar, Steven <Potokar.Steven@epa.gov>
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Don't know if this is already covered, but Rochelle might touch on some of the work we funded through ECY's toxics and nutrients LO – attached is what I could find on the first 4 years of the toxics and nutrients LO.

From: Gockel, Catherine
Sent: Tuesday, August 21, 2018 1:49 PM
To: Murchie, Peter <Murchie.Peter@epa.gov>; Adams, Angela <Adams.Angela@epa.gov>; Rylko, Michael <Rylko.Michael@epa.gov>; Chang, Lisa <Chang.Lisa@epa.gov>; Meyer, Susan <meyer.susan@epa.gov>
Cc: Potokar, Steven <Potokar.Steven@epa.gov>
Subject: FW: Region 10 nutrients presentation preparation - information compilation requested by Sept. 10
Importance: High

Hi Team,

A reminder to send me information on innovative actions related to nutrients. See Rochelle's email below for more detail. If folks can send me their info/materials by Wednesday, Sept 5, I can compile

this for our team to send to Rochelle. Here's what I'm thinking:

- I'd like to include a slide on the PIC program (I'll pull from the attached).
- Rochelle is going to get information on the Nooksack nutrients work from Jana Compton.
- Angela- I think you said you'd provide marine water quality information. Do you think we should also describe Ecology's nutrients workshops?
- Steven- ZAPS/CRADA is listed, but I wonder if you would like to draft the language for that slide? If not, I can do it.

Am I missing any major Puget Sound nutrient efforts?
Thanks so much,
Catherine Gockel, MS/MPA
Puget Sound Program
Office of Water and Watersheds
EPA Region 10
206-553-0325

From: Labiosa, Rochelle
Sent: Monday, August 20, 2018 5:10 PM
To: Croxton, David <Croxton.David@epa.gov>; Lidgard, Michael <Lidgard.Michael@epa.gov>; Shaw, Hanh <Shaw.Hanh@epa.gov>; Burgess, Karen <Burgess.Karen@epa.gov>; Zell, Christopher <zell.christopher@epa.gov>; Cope, Ben <Cope.Ben@epa.gov>; Peak, Nicholas <Peak.Nicholas@epa.gov>; Gockel, Catherine <Gockel.Catherine@epa.gov>; Murchie, Peter <Murchie.Peter@epa.gov>; Henning, Alan <Henning.Alan@epa.gov>
Subject: Region 10 nutrients presentation preparation - information compilation requested by Sept. 10
Importance: High

Hi All,
I am hoping to get your assistance in helping to compile information regarding the Region's nutrients work - I have been tasked with presenting on Region 10's nutrients work on September 20th at the national nutrients managers meeting. I have a format worked out based on what Region 1 presented - please see the attached (if you need me to grant access to the document, please let me know, but it should be shared via this email). If you can find your names below and add your slides by 9/10, I would greatly appreciate it. If you need more time to get the info together, please let me know.
I will work on overall format and slides 1-4
Slide 5 - I am hoping the **Chris Z.** can provide info on the NARS nutrients summary for R10
I will do slides 6-7
Slides 8-10, are on 303d program - **Dave**, can you work with your staff to put together the summary stats/info* plus highlight one novel TMDL example?
Slides 11-13 are on permitting - **Mike and Karen**, can you work with permits staff to compile summary stats/info*, plus highlight one or two novel permitting examples? For the novel permitting example, we could feature Dixie Drain (and I have an IDEQ presentation I can pull from for that, if you wish)
*may be available from the R10 nutrients tool
Slide 14 transition slide (**Rochelle**)
Slide 15 - PS Nutrient/bio-phys model (**Ben**)
Slide 16 - RARE slide on the ag fertilizer optimization project in Oregon (**Alan**)
Slide 17 - RARE slide on Tillamook ODA/EPA/TEP project (**Rochelle**)

Slide 18 - slide on ZAPs CRADA - **Catherine/Peter**
Slide 19 - novel ag approaches - **Nick**
Please let me know if there is something that I have missed that you think would be worthwhile to include.
Thanks so much in advance for your assistance with this.
Rochelle

Rochelle Labiosa, Ph.D.
Office of Water and Watersheds
US EPA, Region 10
1200 Sixth Avenue, Suite 155, MC: OWW-191
Seattle, WA 98101-3140
Ph: 206.553.1172